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ABSTRACT

The three planning papers presented herein were previously given to separate audiences, but have the common denominator of promoting an understanding of the dimensions of changes and of the preparation for that change. They are: management of academic institutions in a period of change; state level policy issues and planning problems resulting from fluctuating enrollment; and higher education and planning, agenda for the 1980's. (MSE)

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HIGHER EDUCATION AND THE 1980s

Three Planning Papers

by
John D. Millett

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Management Division
Academy for Educational Development

Higher Education and The 1980s

Three Planning Papers
by
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Academy for Educational Development

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1414 Twenty-Second St. N.W.
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PREFACE

For the past three years, with some support from the W. K. Kellogg Foundation, the Management Division of the Academy for Educational Development has given particular attention to the planning problems confronting colleges and universities. No one doubts that the social expectations and the individual circumstances confronting colleges and universities in the 1980s will be quite different from those experienced in the 1960s and 1970s. The scope and magnitude of these changes remain uncertain.

The three papers published herewith are a continuation of the Academy's efforts to encourage both an understanding of the dimensions of change and the preparation of plans for change. These papers were prepared for specific groups of persons and necessarily reflect the interest of those groups. At the same time, the papers may touch upon ideas and concerns of a much wider audience.

Necessarily these papers draw upon my own personal experience of nearly thirty years in the planning and administrative operation of higher education. Nineteen of those years were spent as a state university president and as a state government chancellor.

The first paper is one presented on November 18, 1977, to a conference of Rochester (New York) area colleges. The second paper is one presented on December 7, 1977, at a state-wide conference in St. Paul held under the auspices of the Minnesota Higher Education Coordinating Board. The third paper is one presented on January 12, 1978, at a state-wide conference in Indianapolis under the auspices of the Commission for Higher Education of the State of Indiana.

I believe these papers have a certain unity, and I hope they set forth ideas worth careful consideration by academic planners, academic managers, and academic decision makers. To be sure, papers prepared as talks to a specific audience necessarily have a particular slant, a particular relevance. I have not sought to

eliminate these references. Such "local color" as the papers offer may provide some useful detail; in any event it has seemed appropriate for the papers to appear as in fact they were presented.

The publication and distribution of the papers are made possible by the grant from the W. K. Kellogg Foundation, for which I would again express appreciation.

John D. Millett
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Management of Academic Institutions in a Period of Change

As of 1977-78 higher education in the United States has entered upon a period of profound crisis. There is reason to believe that at a minimum this period of crisis will extend throughout the decade of the 1980s. And one of the major issues of this unhappy era will be whether or not our academic institutions will prove to be manageable under circumstances requiring substantial change in accustomed attitudes and modes of behavior.

A single paper or discussion is scarcely adequate for so challenging a subject as the management of change within academic institutions. Please note that I prefer to consider the management of change rather than the management of stability or the management of decline. I refuse to accept the proposition yet that colleges and universities as a group or set of enterprises must now confront the prospect of stability or decline. I am prepared to argue that colleges and universities are already undergoing change, and that this process of change will be accelerated in the decade ahead.

I have a single basic thesis to propound. If colleges and universities can in fact manage a process of change, they need not necessarily manage a process of decline. I would offer simply this alternative. We in higher education either will prove our competence to manage change, or we shall inevitably find ourselves muddling through the management of decline. We have a choice. I only wish I could be confident that we shall embrace the challenge of change rather than succumb to the rigidities of obsolescence and inevitable decline.

I had a wise professor in graduate school back in the 1930s who used to observe that the only kind of socialism we practiced in America was ashcan socialism. When an enterprise or industry was

ready for the ashcan, we as a society were apt to intervene and rescue the enterprise from the ashcan through a form of governmental socialism. I note that there are faculty members and others who seem to think that in the near future our nation will be ready to apply ashcan socialism to our colleges and universities. For myself, I would prefer to look forward to a rational capacity on the part of independent colleges and universities and on the part of public universities and state governments to manage change.

The nature of our crisis requires some elaboration. I would argue that this crisis has social, economic, and intellectual dimensions. Obviously these factors are closely inter-related. We separate them simply for convenience in understanding what is indeed a very complex reality.

I count in my lifetime of nearly 66 years four major discontinuities in American society in relation to higher education. The first such discontinuity occurred in October 1929 when the Great Depression began with the collapse of prices for corporate securities on the New York Stock Exchange. For some 30 years preceding 1929 there had been a steady but unspectacular expansion in higher education enrollment and in the development of graduate and graduate professional education. Suddenly in the decade of the 1930s the idea of a Brain Trust was born, the idea of human intelligence and national planning was put forward as an antidote to economic chance. Higher education gained a new stature in American society.

The second period of discontinuity began with the advent of World War II in September 1939. In the United States first mobilization for defense and then after December 7, 1941, mobilization for war brought not only the full utilization of our economic resources but also a new utilization of our academic resources. Paraphrasing an advertising slogan of those days, I can say that American higher education went to war: went to war to help educate and train officers for the armed forces; went to war to help develop new weapons of which the best known but by no means only achievement was the atomic bomb; went to war to help alleviate and cure the wounds and diseases of war. For its war-time contributions, American higher education achieved a new peak in national prestige and national attention.

The years from 1945 to about 1973 marked yet another period of social discontinuity: years of almost uninterrupted economic

growth of substantial proportions; years of cold war competition and military action in Korea and Vietnam; years of space exploration and a landing on the moon; years of great new progress in the conquest of disease; years when America developed a post-industrial society; years when America made new commitments to higher education beginning with educational benefits for veterans and extending through the federal funding of research, immense new state government construction of facilities and support of institutions, and new federal initiatives in providing financial and non-discriminatory access to higher education; years when higher education was barely able to meet the demands for educated talent in a rapidly changing labor market.

Since 1973 we have embarked upon a new period of discontinuity. In social terms I find the principal evidences of this discontinuity in the oil embargo and the rapid increase in the costs of energy, in the advent of a prolonged economic recession and a very slow economic recovery, in the concern about the sources and costs of energy resources and of raw materials, in the efforts to protect our natural environment from further degradation, in the disgrace of Watergate for the American Presidency, in the end of the strong labor market demand for educated talent, and in the anxieties about economic growth as a feasible and sustainable national objective. No doubt there are other characteristics of our new age of discontinuity to be added to this brief inventory.

I am particularly interested in the impact of these social changes upon the fate of American higher education. That higher education serves a social interest and is molded by social forces, I would expect most persons to agree. Even as in other periods, higher education is now influenced by the social concerns of this new period of time in our national history.

The major social impact upon higher education from our current era of discontinuity seems to be obvious. Higher education has lost in considerable part its role as a major support to the social endeavors and social expectations of our day. Higher education remains the supplier of educated talent to business enterprise, to the professions, to government, and to private agencies of all kinds. But this output is no longer in short supply, and the surpluses of educated talent we are producing may become an embarrassment to our society. Secondly, there is a lessened expectation that higher

education can or will help the nation to resolve the problems of energy resources, raw materials supply, or environmental pollution. For example, a recent estimate by the National Science Foundation tells us that of a nearly 10 billion dollar increase in federal government spending for research and development between fiscal 1974 and fiscal 1978, one-fourth was devoted to energy resources and nearly 50 percent to national defense, fields in which our research universities have contributed little in recent years, partly by their own volition. In the third place, higher education has done little to resolve the popular anxieties of our day: anxieties related to the prospects for economic growth, to the persistence of poverty and unemployment, to the complexities of urban concentration and extensive crime. I can summarize the relationship between higher education and society in America today by declaring that not since 1929 has our society asked or expected less from higher education than it does currently.

As if this dimunition in the support role of higher education to society were not enough to worry about, there is yet a further complication. During the 1960s, years of outstanding economic growth and of major shortages in educated talent, the United States embarked upon one of the most remarkable tasks of social engineering ever attempted by any society in the recorded history of man on this planet Earth. That task was to bring discriminated-against minorities—black, Spanish-American, and Indian—into the mainstream of American economic, technical, professional, and managerial competence. The principal instrument of this social engineering insofar as technical, professional, and managerial employment was concerned became our colleges and universities. In many instances new policies of open admission, special admission, and developmental instruction were introduced to assist minority students to achieve the qualifications necessary for new kinds of employment and a new social status. And at the same time women began to enter into the labor market in greater numbers than ever before, and to press their claims for professional and managerial recognition.

I remember well the occasion in the summer of 1963 when President Kennedy invited some 200 university presidents to the White House to consider how higher education institutions could help advance educational opportunity for blacks. The Civil Rights Act of

1964 and much subsequent legislation has encouraged the effort at the economic and employment integration of America. As Chancellor in Ohio from 1964 to 1972 I am proud of the small role I played in this great effort at social engineering by means of facilities and appropriations adequate to open admission, the inauguration of funding for developmental instruction, and the start of a state government student aid program for students from low income families.

The unfortunate fact is that this great experiment in social engineering had not been completed when the discontinuity of 1973 struck our society. We had raised high the expectations of minorities only to lose the circumstances of economic affluence which made our social engineering possible. Today we continue to live with expectations of social mobility and a different employment opportunity for minorities when social mobility and employment opportunities for all persons of educated talent have declined, when the prospects for further economic growth are uncertain, when unemployment, especially for young people, is extensive. And who in higher education has an answer to the problem of how to maintain meritocracy along with social engineering in this new time of discontinuity?

I need not dwell at any length upon the economic dimension of higher education's circumstances today. The facts are readily apparent. Economists like Schultz and Vaizey argued in the 1950s and 1960s that the economic returns to individual and social investment in higher education were substantial, and in a decade between 1957 and 1966 as advocated by a Presidential Committee our society doubled the real income of faculty salaries. Higher education escaped from the genteel poverty of the pre-1939 years because higher education had a new economic value to American society. But beginning about 1969 and gaining momentum in the 1970s, higher education has experienced a declining economic value because of the rise of surplus products.

I am tempted to compare the economics of higher education with the economics of American farming. When farm products are in short supply in relation to effective demand, the American farm prospers, and the American consumer complains. When farm products are in surplus supply in relation to effective demand, the American farm experiences economic stress. And the American

farmer has had to learn how to live and survive in an economy of alternating booms and depressions ever since 1919. American higher education may be entering an economic period similar to the one the America farmer has known for nearly 60 years.

The only response our faculties have devised for coping with circumstances of economic stress is collective bargaining. Somehow the fear of faculty collective bargaining is expected to encourage administrators to new feats of fund-raising, or propell state governors and legislators to new levels of institutional funding. Or the reality of faculty collective bargaining is expected somehow to extract new dollars from the American student or his family, new dollars from American philanthropy, and new dollars from reluctant legislators and perturbed taxpayers. For some unknown reason we in higher education have been careful not to address the primary issue: how do we persuade society to invest more of current economic resources in higher education when the economic value of our products to society is declining.

The third dimension to our time of profound crisis is intellectual. The so-called "golden age" of higher education from 1945 to the beginning of the 1970s was a period when empirical science, primarily in the physical and biological sciences, flourished and produced great social benefit. A concerned humanist like Jacques Barzun in 1963 might label science as "the glorious entertainment," but the fact was that science enhanced the American record as an achieving society. The exploration of space, the conquest of certain dreaded diseases, the revolution in electronics and all the new mechanisms for communication and information processing—these accomplishments were tangible evidence of the pay-off from the education of talent and the pursuit of science.

It is a truism propounded by many philosphers, authors, and a few social scientists that America's advancement in empirical knowledge of the biological and physical sciences, with their attendant engineering, has by no means been matched by an equal advancement in man's synoptic, aesthetic, and ethical knowledge. Indeed, I will go a step farther and assert that while our understanding of man's behavior in his political, economic, and social endeavors has been substantially illuminated by the achievements of our behavioral sciences, we have accomplished little in the way of intellectual guidance about how man ought to behave.

I know of no greater intellectual gulf today than that which exists between the knowledge of economic behavior and the practice of economic management, a practice jointly engaged in by governmental officials and professional business managers. I challenge any person to listen carefully and objectively first to the ideas of the professional economists and then to the expression of the practical concerns of the professional business manager. Such a listener can not fail but to come away from this experience convinced that he has encountered two very different worlds. No wonder a well-knowned member of the economic profession dares to bait his fellow scientists with the declaration that all of them are "economists at bay."

The crisis in the relationship of higher education to society and the decline in the economic fortunes of higher education are accompanied by a crisis in intelligence. How can it be otherwise, and again I borrow a phrase from Jacques Barzun, in the house of intellect?

It is always easier in any public declamation to decry the times and the customs than to offer a convincing solution. In a recent book entitled *Managing Turbulence and Change* published by Jossey-Bass, I have offered my own list of changes I believe may occur in the operation of our colleges and universities in the decade of the 1980s. There is no need to review that listing here. Rather, I would explore the possibilities for managing change brought about by the crisis in our relationship to society, in our claim to economic affluence, and in our poverty of intelligence useful to a troubled society.

Let me say at once that I am not overly optimistic about our competence to manage change in higher education, even as I am not overly optimistic about our capacity to manage change in society at large. I would like to believe that a social institution dedicated to pursuit of the rational in man's understanding of himself and his universe would be the first institution to undergo carefully considered, purposeful, and appropriate change. I would like to hold this belief. There are days and circumstances when this belief is severely battered.

I have friends who as social scientists of some repute assure me of two propositions. They tell me that only a clearly perceived and fully evident crisis can persuade persons in a social organization to alter traditional or accustomed modes of behavior. This proposition, they assure me, holds true in such varied social organizations as the family, a church, a business, a union, a voluntary association, or a

nation. It took the crisis of the Great Depression from 1929 to 1933 to make possible the New Deal of 1933 to 1939, to achieve what a former colleague of mine at Columbia University termed a revolution in economic behavior and in economic thought.

The second proposition asserted to me is that crisis can be managed only by a form of authoritarian leadership. How many of us recall that remarkable social invention of the Senate and People of Republican Rome whence we have derived our word "dictator"? And how many of us know that both a society of military leaders of the American Revolution and then the name of a major American city bear tribute to the ideal dictator of Rome's Republic, who assumed the burdens of leadership in a time of crisis and then of his own free will surrendered his absolute authority when the crisis was ended? The management of crisis, the resolution of critical change, we are sometimes told, is beyond the competence of a liberal democracy and a pluralistic society.

In this context we need to be clear about our understanding of the meaning of management. I have written on several occasions that management means work planning and work performance. The very concept of management assumes its importance because of the extent to which the enterprises of our society, including the enterprises of government, have become bureaucratized. Bureaucracy implies division of work, assigned tasks, skill or expertise in work accomplishment, a prescribed output, a structure of authority and responsibility for work direction, and a technologically proficient process of work performance. Bureaucracy suggests size, objective and rational action, and careful calculation of necessary means to desired ends. Bureaucracy also suggests some delay in action while expected procedures are fully observed, and accustomed routines are followed. The bureaucratic mind is generally held to be non-innovative, lacking spontaneity and creativity. But the bureaucratic mind can also be orderly and effective in getting work done. We would not tolerate bureaucracy otherwise.

A higher education enterprise constitutes a unique bureaucracy. There is division of labor in the differentiated fields of specialized knowledge, both theoretical and practical. There is professional expertise in work accomplishment. There are prescribed, or at least expected, outputs of instruction, research, public service, educational justice, and constructive criticism of society. There is a

structure of operating programs and a structure of support programs. But this structure of operating programs is highly decentralized, providing a substantial autonomy (or freedom from superior direction and control) for each individual faculty member and each individual specialized field of knowledge. Organized autonomy rather than a hierarchy of authority and responsibility is the structural characteristic of the higher education enterprise in the performance of its operating programs. It is this structural characteristic which makes the higher education enterprise a unique bureaucracy.

The basic issue for higher education then is whether or not a bureaucracy of organized autonomy can manage change. Can such a bureaucracy plan change, and implement change? How do we discover and develop the incentives for managerial change? Many colleges and universities today are exploring this question at the level of institutional management. It is even more important to explore the question at the level of departmental management.

I know persons who despair of any possibility of change on the part of academic disciplines, academic specializations, and academic departments. They have a simple solution to the problem: abolish academic departments. I cannot share or endorse any such simplistic approach to a basic problem. I would argue that our academic departments have great accomplishments to their credit in the past, and continue to have great potential for accomplishment in the future. I cannot envisage a knowledge society today without the expertise of specialization.

At the same time let me acknowledge that a major obstacle to academic change is undoubtedly the academic department, especially the departments in the arts and sciences. A major need of our new era of crisis is the reallocation of resources within our colleges and universities. A second need is the development of new products to be produced by our academic enterprises, new products suited to a period of social discontinuity, a period different from the years of 1945 to the early 1970s. Some of our academic departments may indeed stand in the way of both a realistic allocation of resources and a development of new academic products.

Our colleges and departments of education have already felt the impact of change in the demand for elementary and secondary school teachers. Our graduate schools in the arts and sciences have

already felt the impact of change in the demand for college and university faculty members and for research scientists. In our undergraduate colleges of the arts and sciences there still seems to be some reluctance to admit that graduate education in the disciplines has lost the glamour it enjoyed in the 1950s and in most of the 1960s.

On the other hand, higher education has been experiencing enrollment pressures in various career fields, especially in law, the administrative sciences, the engineering sciences, medicine and the health sciences. and information sciences. There has been enrollment growth also, I hear, in the agricultural sciences, in agribusiness, and in natural resource management. I have encountered situations in the past three or four years in which there are academic departments and colleges with large enrollment growth but without any corresponding increase in faculty positions alongside of other academic departments and colleges with enrollment loss and underutilized faculty members.

Colleges and universities have asked for new income to meet their overburdened situations at the same time when they have situations internally of little used resources. It is small wonder that when state boards of higher education observe these circumstances in state universities they ask why current resources should not be reallocated to meet these urgent needs.

I think it is fair to say that in the 1950s and 1960s our undergraduate programs in the arts and sciences had one major output objective: to produce a baccalaureate recipient qualified to enter graduate education in the arts and sciences. Incidentally, and somewhat begrudgingly, it was also acknowledged that these baccalaureate recipients might desire to enter medical school, law school, or a school of theology. Today, our medical schools admit about one out of three applicants and our law schools admit considerably less than half of all applicants. Our graduate schools in the arts and sciences are striving to reduce their numbers at a time when only one out of every two Ph.D. recipients is likely to obtain employment appropriate to his or her educational attainment.

We must shift faculty and other resources from teacher education and the arts and sciences, or we must produce new educational products from these resources, or we may need to do both. What do I mean by new educational products? There are several possibilities. In the arts and sciences we might strive to produce a general educa-

tion instead of a specialized education, a humane individual regardless of whether or not that individual is an employable person in some kind of specialized role. We might seek to integrate the world of work with the world of knowledge by enrolling more part-time and older students, by recognizing the relevance of work experience to intellectual exploration, by providing ideas conducive to man's understanding and satisfaction in a complex society of work. We might do more in public service, both in general education and in continuing professional education. Some few of us may still demonstrate the capacity to apply superior intelligence and substantial creative talent to the solution of national needs and the advancement of cultural appreciation.

Higher education needs two kinds of change: to produce useful products recognized as such by society in a new period of social development, and to be both more effective and more efficient in its use of faculty and other resources employed in this educational output. By and large the higher education leadership in our colleges and universities is well aware of these needed changes. The problem is how to manage such change.

The first task of leadership and of management is to plan change. The leadership of our colleges and universities must articulate the social requirements of change, the application of changing social circumstances to the situation and mission of the individual enterprise, and the reasonable expectation of the enterprise for income from government, students, philanthropy, and the sale of services. Managers—college deans, departmental chairmen, and faculty practitioners—must undertake to plan work outputs and work processes in the light of these social circumstances, institutional mission, and available resources. Planning for change requires reallocation of resources among work programs, and the reallocation of resources among work products.

The second task of leadership and of management is decision making. Everywhere I go today I am told by presidents, academic vice presidents, and deans that they know how to plan change, that they can draw up plans, but that they cannot get plans adopted or implemented. If there is a danger today of external intervention in institutional affairs, especially at public universities, it is because of a widespread perception of institutional lack of capacity to make decisions for change.

I have both sympathy and understanding for the plight of presidents and their administrative colleagues. We have complicated the governance structure and process within our colleges and universities by providing for faculty and student consultation, and then by permitting consultation to become the authority of veto. The president and the academic vice president who suffer a vote of no-confidence in a faculty senate find few other groups ready and willing to come to their support. Governing boards on the one hand expect presidents to run a tight ship and on the other hand expect presidents to avoid internal controversy and conflict. Governing boards can't have it both ways. Presidents who run a tight ship are apt to encounter mutiny.

If those who provide the dollars for colleges and universities want these enterprises to be managed effectively and efficiently, then they must provide incentives for leaders and for managers to use available resources effectively and efficiently. One incentive, a major incentive, is economic. The well managed college or university must be the economically rewarded college or university. And the rewards must extend to faculty members as well as to academic administrators. I think faculty salaries and administrative salaries must be earned. It is not enough simply to want faculty and administrative salaries to increase year by year. Persons who receive salaries that do not reflect their contribution to economic output constitute a new aristocracy, achieve a new status of reward based upon position and not upon usefulness. There is a very real danger in higher education, and in some other places as well, that we shall establish an aristocracy of status rather than a structure of compensation based upon productivity.

Colleges and universities tend not to understand the economics of higher education. In the past colleges and universities existed upon the charity of benefactors and the crumbs of state governments. Between 1945 and 1970 colleges and universities achieved some degree of economic affluence because the economy needed the outputs of higher education. In the late 1970s the current outputs of higher education are less valuable economically than in earlier years, and may continue to be less valuable in the 1980s. To recover and to justify our affluence, we must be economically useful and productive.

The management of change is to prepare and to implement plans

for change. Between preparation and implementation are the processes of leadership and governance. It is not easy to persuade people to change. Look at how reluctant we as a nation are to change our patterns of energy consumption. The national energy plan of President Carter is essentially a plan of economic incentives.

We shall be able to manage change in patterns of higher education output and consumption primarily, I believe, through a plan of economic incentives. It is high time that we get about the business of improving the business of higher education.

State Level Policy Issues and Planning Problems Resulting from Fluctuating Enrollments

In opening this very important annual meeting in the history of the Minnesota Higher Education Coordinating Board, the problem confronting me is one of selecting the particular policy issues and the particular planning problems to be addressed in an opening statement. I have had an opportunity to study the preliminary draft of the document prepared by the Coordinating Board for consideration at this time. It seems to me that this document has admirably identified the policy issues and planning problems confronting higher education in Minnesota, and indeed the issues and problems confronting all state governments, as we prepare to meet the changing enrollment circumstances of the 1980s.

Let me remind you that the locus of the planning authority and responsibility for higher education in the United States rests with our state governments, and with the governing boards of institutions and institutional systems. We cannot and we should not look to the federal government to undertake our planning chores on our behalf. Two propositions seem clearly evident to me at this time. First, for various reasons, higher education is currently a low priority item on the agenda of national concerns occupying the attention of the Presidency, the bureaucracy, and the federal Congress in Washington. Secondly, the thrust of federal initiative and programming in higher education has already been determined and is unlikely to undergo change in the next few years. That thrust emphasizes support of research projects to be undertaken by our leading research universities, and the support of student access to higher

education institutions by means of student financial aid. There will be some additional modest programs in the arts, the humanities, and institutional development. And there will be considerable attention to federal regulation rather than financial support of our public and private institutions to achieve social objectives concerned with access by women, minorities, and the handicapped, and to achieve social objectives concerned with occupational safety, retirement practices, and environmental protection.

If we are going to plan to meet the changing circumstances of higher education in the United States today, that planning will have to be done by institutions and by state governments. I think this expectation is entirely proper. From the time of the founding of our Republic, higher education has been allocated in our federal system to state authority. It is our states that have chartered private institutions and established public institutions to meet the higher education needs of our society and of our nation. Moreover, these needs have been notably well served, a circumstance we are apt to overlook as we face the difficulties of the present and of the future. I have not lost confidence in the competence or the ability of institutions and of states to continue to be masters of their destiny in the field of higher education.

Before I embark upon a discussion of the three major policy issues I have chosen for emphasis here, there are two preliminary observations I wish to make. The problems you confront in Minnesota are the same problems every institution of higher education and every state government confront today. Oftentimes we in higher education are apt to believe that our particular circumstances are unique, that our troubles are especially burdensome. The fact is of course that while individual situations do vary, the scope of our general problems is nation-wide; indeed from my participation in a current international study I can say that our general problems are world-wide. If misery is in fact made bearable by company, our current misery should almost be enjoyable.

The other preliminary observation I would make involves my admiration for the way in which the Minnesota Higher Education Coordinating Board is approaching the problem of state government planning for higher education. It is indispensable in my judgment that there should be a state board of higher education to exercise state leadership in higher education planning. There are several

state governments currently which are attempting to exercise this leadership through the executive office of the Governor, or even through legislative committees and staffs. To be sure, Governors and General Assemblies must eventually make the planning decisions about what state governments will undertake to provide and to support as higher education services to their states. I think this decision-making process will be better served by a state board of higher education and a professional staff interested in and experienced in higher education than by other arrangements.

In addition, I am pleased to observe the approach to planning undertaken by the Higher Education Coordinating Board. This approach represents, I believe, the proper procedure. The Board has provided some planning parameters insofar as enrollment of the traditional college-age group is concerned. The Board has identified major problems and major policy issues; it has established a planning agenda. The Board has outlined a planning process, a plan to plan if you please, which places the first task of planning upon individual institutions and system governing boards. The Coordinating Board proposes to exercise a review role, not an initiating role.

The Coordinating Board concept of planning can work only if institutions and systems respond on an effective and timely basis to the planning initiative thus expected of them. I notice in some states today a sense of disillusionment on the part of chief executives and of legislators with state boards, with system governing boards, and with institutions in terms of their response to changing circumstances. Chief executives and legislators assert that institutions seem to expect to continue their programs as in the past, but always at greater cost. They observe that institutions ignore or short-circuit state boards, and that chief executives and legislators are then placed in the position of having to arbitrate conflict or disagreement between institutions and state boards. What use is a state board under these circumstances?

I think all of us in state government ought to recognize that if there isn't conflict between a state board of higher education and institutions of higher education, then obviously the state board is not doing its job. And if institutions short-circuit the state board, then chief executives and legislators must bear part of the fault since they can stop the practice if they wish to do so.

Now please do not misunderstand me. In making this last comment I am not talking about Minnesota, but about other states. And I am not suggesting that state boards must always be right and institutions must always be wrong. I do not believe that state boards are infallible. I do believe that state boards must necessarily have a perspective different from that of institutions and system governing boards, and I believe this different perspective should be invaluable to chief executives and to legislators in exercising their authority and responsibility for decision-making about the policies and programs of higher education.

Now let me turn to the three particular policy issues I wish to discuss here. The Higher Education Coordinating Board has identified a major problem for higher education institutions in Minnesota: the decline in the number of high school graduates from 1977 to some future year between 1985 to 1994 in 11 of 13 planning areas of the state. This decline will vary from 18 percent in one planning area to around 33 percent in six planning areas to over 40 percent in three planning areas. But in two planning areas there will be an increase in high school graduates between now and the beginning of the next century: in one instance an increase of 21 percent and in the other instance an increase of 50 percent. These changing numbers of high school graduates constitute the basic data for anticipating the enrollment fluctuations that lie ahead for higher education institutions in Minnesota.

Along with this fundamental problem of the changing number of young people of the traditional college age group, the Higher Education Coordinating Board has identified ten major areas of state government policy that will be affected by enrollment fluctuations. In effect, these ten policy issues embrace the major decisions about state government actions taken in the 1960s when our concern was to ensure access to higher education institutions and to varied higher education programs on the part of every individual who might seek the benefits of higher education. Let me add that state governments in general, and Minnesota in particular, responded with vision and effectiveness to the needs of the 1960s and early 1970s. Now we live in a new era and must respond to new expectations.

I wish to present my own comments about these policy issues under three general headings: issues of program, issues of relationship between the public and private sectors of higher education, and

issues of financing. I believe that in connection with these three general subjects I shall encompass most of the issues identified by the Higher Education Coordinating Board as constituting the planning agenda of Minnesota state government.

The Coordinating Board has placed appropriate emphasis upon the review of mission by each institution and by each system-wide governing board. I would go a step farther and emphasize the importance of program review by each institution and by each governing board. Mission is a set of goals an institution desires to fulfill. Programs are the set of work objectives and work loads to be performed by an institution. A mission becomes specific only in terms of programs; a mission may change primarily because of program changes. And a mission is simply a generalized aspiration until it is translated into feasible programs. Moreover, programs are the units of activity that must be financed, that must have input resources of personnel and services if desired outputs are to be accomplished.

The National Center for Educational Statistics has provided us with a taxonomy of instructional programs; the National Center for Higher Education Management Systems has provided us with a program classification structure; and the National Association of College and University Business Officers has provided us with a chart of accounts for recording and reporting the income and expense of program performance. We in higher education have the program structure for program planning.

The broad categories of program structure include instruction, research, public service, student financial assistance, and support services. Public service necessarily separates out two specialized categories for financial accounting and reporting: the operations of a teaching hospital of a medical or health science center and the independent operations of some specially funded agency such as a state mental health facility. And the research category breaks out the independent operation of a specialized and specially funded research facility. The support services should and do break out auxiliary enterprises because of their special identity as programs self-supporting on the basis of charges to the clientele served.

I wish to comment primarily about instructional programs. I am well aware of the faculty interest in undertaking research, and I know that faculty members generally are dissatisfied with the

current levels of specialized funding of research projects. But I must express my opinion that faculty workload budgeted for research will depend in the future upon federal government project grants, plus specific state government appropriations for research. The public service workload of faculty members in the future will depend upon the income generated by these activities. I have a grave doubt that we shall be able to finance faculty research and faculty public service in the generalized fashion so common in the past.

The instructional programs of higher education are divided into specialized fields of study and particular levels of study. At the two-year or associate-degree level, there are instructional programs in technical education and in general or college transfer education. At the four-year or baccalaureate level there are instructional programs in the arts and sciences and in professional fields such as business management, teacher education, nursing, engineering, agriculture, music, and art. At the master's degree level there are instructional programs in the arts and sciences and in professional fields. At the graduate professional or first professional degree level there are instructional programs in medicine, dentistry, law, optometry, veterinary medicine, pharmacy, osteopathic medicine, and theology. At the doctor's degree level there are instructional programs in the arts and sciences and in professional fields.

At the same time when a particular institution is experiencing enrollment declines in the arts and sciences and in teacher education, that institution may be experiencing enrollment increases in the administrative sciences, the health sciences, the engineering sciences, and the computer or information sciences. It is not enough for an institution to be alert to general enrollment decline; it is far more important for an institution to be alert to enrollment fluctuations in particular fields of study and at particular levels of study.

I know situations where a college or university has said that it was experiencing growth in several programs and that it had to have more income in order to meet these enrollment demands. Yet at the same time this college or university was experiencing enrollment declines in other programs. State boards of higher education, the staff of a chief executive, and the staff of the legislature would then rightly ask why all or part of the need for more income shouldn't be met by a reallocation of resources internally. The customary answer was that conditions of faculty tenure or the provisions of a faculty

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collective bargaining agreement prevented such flexibility. I suspect increasingly this kind of an answer will be regarded as inadequate.

There are certain other comments that must be made about instructional programs. Should instructional programs be tailored in enrollment to estimated manpower needs for educated talent in the labor market? My answer is generally no. Colleges and universities have an obligation fully to inform students about prospective employment in every field of study, including employment in the arts and sciences, and to inform students about the likelihood of admission to a law school, to a school of medicine, or to any other professional field of study. Students should know what the job market in every specialized field is likely to be, and should be warned about the magnitude of the competition for available professional employment. But it is better, I believe, for students to prepare themselves for competition than for colleges and universities to limit enrollment. There are exceptions to this position, of course; but in general I prefer to see fluctuations in program enrollment occur as a result of student choice rather than as a result of state government or institutional planning. I lack the confidence in our capacity to foresee future employment to want to have manpower forecasts serve as enrollment limitations.

I cannot refrain from a few comments about general education. On every possible occasion for nearly 30 years I have broken a lance on behalf of general education as an instructional program, and along with some others I cannot perceive any impact of any kind resulting from this tilting at windmills. I would like to see a shift of our resources for instruction in the arts and sciences from specialized education to general education. I would like to see a rebirth of the idea that education in the arts and sciences seeks to produce an educated person rather than an entrant to graduate study. To be sure, we shall continue to need entrants to graduate study, but probably we shall have employment for only about one-half of all the prospective number of Ph.D. recipients in each year of the 1980s.

I have listened all of the thirty-two years since my own return to academic pursuits at the end of World War II to faculty members who have talked glibly about education for a humane life rather than education to make a living. I have heard the talk, and after thirty-two years I am still waiting for the action. The greatest instructional program opportunity for every college and university in

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the land is general education, and I can't find a faculty of arts and sciences anyplace in the land taking this program opportunity seriously. Perhaps you can provide me with information about exceptions to this generalization.

There is one other instructional program which needs special mention. All of us talk a great deal these days about the non-traditional student, and indeed I believe there is a non-traditional student market for our colleges and universities to serve. But very few persons have explored the enrollment dimensions of this market, or the instructional program objectives to be sought in serving this market. I happen to believe that in every sizeable urban area there are older employed persons who want or need further higher education in order to maintain or advance their employability. We will find this market only when we devise instructional programs useful and advantageous to the older employed person. It seems to me that our program planning at the college or university level has thus far tended to be deficient in exploring the instructional needs of older employed persons in the various labor markets where our institutions are located. Obviously the institutions that ought to be doing this kind of planning are those located in sizeable labor market areas.

There is much more that can be said and should be said about instructional program planning. I hope I have said enough to suggest that no aspect of educational planning is more important or more critical in the years ahead than instructional program planning. We had better make sure that we give instructional program planning the attention and the emphasis it deserves.

My second general policy issue for discussion here is that of the relationship of state government to private or independent higher educational institutions. Here in Minnesota you have a student financial aid program advantageous to private higher education, and you have the private college contract program that offers financial assistance to private institutions. In a time when all financial commitments of state government to higher education are under review, it is inevitable that these particular programs should come under careful scrutiny. When there are insufficient state government resources to meet all the financial needs as perceived by public institutions, these particular forms of state assistance to students

and institutions in the private sector cannot be expected to escape appropriate re-examination.

Beyond this circumstance, there is scarcely any aspect of planning by public colleges and universities and scarcely any decisions of state government in the foreseeable future which will not have some impact upon the survival power of private colleges. Decisions about tuition policy, about the size and location of public institutions, about the instructional program offerings of public institutions, and about interstate tuition reciprocity—all of these decisions must necessarily have their influence upon the enrollment and financial well-being of private higher education.

Many years ago, in 1949, when in undertaking a study for the Association of American Universities I first became aware of conflict between the public and private sectors of higher education, there were some persons who had a formula to offer. It was suggested to me and to others that state governments should provide all the necessary financial support to state colleges and universities, and that these institutions should then refrain from any solicitation of private philanthropy. In turn, private institutions would refrain from any appeal for state government financial assistance. At that time, I and my colleagues from the AAU, all but one of whom served private colleges and universities, rejected that formula. I myself as a state university president and as a state government chancellor never had any occasion to regret, or to change, that decision. On the one hand, public institutions of higher education in the past 30 years have increasingly benefited from private philanthropy, and private institutions of higher education have increasingly benefited from state government financial assistance. I for one would not have it otherwise.

I have listened over the years to some unfortunate claims and counter claims on behalf of both public and private nigher education. Both kinds of institutions serve a public purpose; both kinds of institutions have benefited numerous individuals; both have assisted private business enterprise as well as many other sectors of society; and both have advanced the quality of instruction and research and public service in our nation.

The essential differences between the public and the private sectors of higher education are differences of governance and differences in the financing of instructional programs. The public

sector of higher education is governed increasingly by boards with authority and responsibility for systems rather than for individual campuses, and these governing boards are appointed by public agencies or elected by the people. The private sector of higher education is governed by boards of trustees that are often self-perpetuating or are selected by private groups. The instructional programs of public colleges and universities are financed essentially from two sources of income: state government appropriations and student tuition. The instructional programs of private colleges and universities are financed essentially from two sources of income: student tuition and philanthropy. It is sometimes said that private higher education is more expensive than public higher education because of smaller size and lower student-faculty ratios. But on a program by program basis of comparison, one can find high cost instructional programs per student in public institutions and low cost instructional programs per student in private institutions.

The principal causes of conflict between the private and public sectors of higher education over the past decade or more have been the tuition differential between the two sectors and the expansion of public higher education into major urban areas. Charges to students and geographical location have been the two major issues, and now that we see ahead a period of enrollment fluctuation these issues can become even more troublesome than they have been in the past ten years.

I am a strong believer in private higher education, and in state government planning and decisions concerned to preserve a viable private sector. Nineteen years as a state university president and as a state government official have reinforced my belief. It may be said that as a state government official in the 1960s I gave too little concern to the welfare of private higher education, but my preoccupation was one of making certain that public higher education did accommodate every student who presented himself or herself for enrollment. And that objective was accomplished.

I am a strong believer in private higher education because I am a strong believer in public higher education. In a pluralistic society and in a liberal democracy there must be, I think, an alternative to public higher education. And it is this alternative that helps substantially to maintain the integrity and the quality of public higher education. Without private higher education in this country I fear

that public higher education might well deteriorate in performance, and all of our society will be the worse if that unfortunate event should occur.

I know no simple solution to the future of private higher education. Some private colleges are too small for viable operation under changing circumstances and must federate or die. All private higher education must participate in state government planning, and must accept some constraints upon their autonomy in return for state government financial assistance. I prefer that a state should assist private higher education through financial assistance to students, and through financial assistance to students that recognizes the tuition gap between public and private colleges and universities.

It is time then to turn our attention to financial issues. The issues identified by the Coordinating Board are a bundle of interrelated problems. It is essential to understand that the issues of financing policy, tuition policy, student financial aid policy, interstate tuition reciprocity, and funding formulas cannot be separated one from the other. All these issues are important and deserve careful consideration, but they can be resolved in a coherent and rational way only if they are approached and decided as a package rather than piecemeal.

I would begin consideration of these issues with that of the funding formula. I have argued for many years as an administrator and as a consultant that the comprehensive annual operating budget of a college or university is in fact a series of component budgets, and that each of these component budgets must be formulated and analyzed in terms of both income and expenditure. These component budgets include the instruction budget, the separately funded research budget, the separately funded public service budget, the student financial aid budget, and the auxiliary enterprises budget. To these budgets must in a few instances be added the budgets for teaching hospitals and for independent operations. Since so much of the income of colleges and universities is restricted income, restricted by law and gift or restricted by common understanding, every institution needs to know for each component budget the extent to which earmarked income meets programmed expenditures.

It is in connection with these component budgets that the first major issue of financial policy arises: the extent to which expenditures shall be restricted to earmarked income. It is prevailing prac-

tice in the United States, for example, that auxiliary enterprise expenditures shall be matched by auxiliary enterprise charges. I would apply this policy standard to residence halls, food service, bookstores, a student health service, and income producing intercollegiate athletics. I recognize that both public and private colleges and universities spend more for student financial assistance than they receive in earmarked income for student aid. In the most recent year for which we have detailed institutional data, the fiscal year 1975, public institutions reported that they received some 470 million dollars in restricted income for student aid, but they spent 740 million dollars, a gap of 270 million dollars. Private colleges and universities reported that they received 370 million dollars in earmarked income for student aid, but they spent 735 million dollars for student aid, a gap of 365 million dollars.

I do not question the need for both public and private colleges and universities to spend money from general income for student financial assistance. But I think this gap should be precisely budgeted and should be clearly known throughout the academic community and to all agencies and parties who provide support for our academic enterprises.

From this point on I shall be referring specifically to our instructional budgets, to the income and expenditures related to instructional outputs and their correlative research and public service outputs. The first requirement in instructional budgeting consists of two parts: the output budget and the support budget. The support budget is our institutional overhead: our costs of academic support, student services, plant operation, mandated transfer payments, and institutional services and management. I am appalled to observe how overhead costs have mounted in recent years. Thanks to the inflation in energy charges, and to social costs mandated by the federal government in such fields as affirmative action, occupational safety, access for the handicapped, and retirement benefits, our plant costs and our service costs are mounting rapidly. It is imperative for us to find some way to bring our support program costs under some kind of control.

In this connection let me remind you that the smaller the enrollment size of a particular campus the larger will be the support costs per student enrolled. I know of campuses today where support costs are approaching 50 percent of the total educational and general

budget. The whole question of desirable size of a campus must be considered first in terms of what it costs to support and maintain a campus, and then in terms of what it costs to provide a minimum effective instructional program.

I have long been an adherent of budgeting for instruction on a program basis, on the basis of costs by general fields of study and by levels of study. The budget formulas appropriate for state governments in the 1960s, however, will not, in my judgment, be adequate for the circumstances of the 1980s. For one thing, enrollment declines must be budgeted in terms of marginal costs, not average costs per student. Moreover, just as there is a minimum support cost for every institution regardless of enrollment size, there is also a minimum instructional cost for every instructional program regardless of enrollment size. Our instructional program budgeting must be much more sophisticated in the years ahead than in the years past.

Our budget formulas in the 1960s tended to recognize higher cost for upper division students than for lower division students, higher costs for students at graduate level II than at graduate level I. These expenditure differentials were realistic at the time, but they also encouraged public institutions to expand their graduate programs in order to obtain increased financial support. It is high time not only for each state to review the need and the location of all graduate programs but also to seek ways to reduce the economic incentive to undertake and maintain graduate programs.

I take it that financial policy issues include a consideration of the desirable instructional income distribution between charges to students and support from society. In the public institution the choice is between tuition and state tax dollars. In the private institution the choice is between tuition and philanthropic dollars. Inflation and governmental student aid dollars have encouraged increases in charges to students. If a college or university, public or private, wants to obtain any institutional income from the federal government's educational appropriations for 1978, that college or university will have to obtain that income by charges to students. Of some 3.9 billion dollars appropriated for higher education by the federal Congress in the HEW budget, over 3.5 billion dollars or almost 90 percent is for student financial assistance.

The argument today in favor of low tuition is not that low tuition

is necessary for students from low income families but that low tuition is essential for middle income families, for families who find themselves in the second quartile of income distribution, the family income bracket from $15,000 to $24,000 a year. I think we have in recent years given too little attention to the impact of constantly rising tuition charges upon students from this family income bracket.

Some states have attempted to adopt a policy setting forth the appropriate distribution between tuition charges and state tax support of instructional programs in public institutions. The policy on tuition charges may vary from 20 percent of average expenditures for baccalaureate programs to 50 percent, and from 30 percent of average expenditures for graduate and first professional programs to 50 percent. I do not know what the appropriate distribution ought to be. In the fiscal year 1975 public universities on the average in the United States obtained 22 percent of their instructional and overhead costs from tuition, while public four-year colleges obtained 19 percent of their instructional and overhead costs from tuition. Private universities in the United States as a whole obtained 54 percent of their instructional and overhead expenditures from tuition, while private four-year colleges obtained 66 percent of their instructional and overhead expenditures from tuition. Obviously these national aggregates encompass a wide variety of particular situations and circumstances.

In the last resort I suspect tuition charges are more apt to reflect a pragmatic concern for needed income than any policy position on charges to students for instructional services. The practice of tuition charges should really begin with a concern for instructional expenditures and for support costs. We need to ask how can we control costs before we begin to talk about how to price these costs to students.

There is of course another possibility we need to consider. Traditionally we have said that higher education derives its income from three principal sources: charges to students, governmental subventions, and philanthropy. There has always been a fourth source of income. In the jargon of our standard accounting practice we refer to this fourth kind of income as the "sales and services of educational activities." Not including hospital income, these sales and services produced over 550 million dollars of current income in 1975 out of a total income of nearly 36 billion dollars, or just 1.5 percent

of all income. But I wonder if we in higher education ought not to cultivate our entrepreneurial talents and ask ourselves how we might increase our income from sales and services.

More and more in the brochures that come across my desk today I am finding reference to "continuing education units." I find professional consultants and professional associations already busy at work cultivating this market for continuing professional education and the award of those precious continuing education units needed for the renewal of professional licensure. I cannot understand how any college or university can afford to ignore this market, or can fail to plan how to expand the sales and services of educational activities.

There is so much more that can and should be said about the problems and policy issues of fluctuating enrollments. In a short period of time one can do no more than call attention to some of the more important problems and issues, and then to express a deep, abiding faith that the planning process can and will offer us rational, considered lines of action to meet our changing social circumstances.

There was a national advertisement by one of the great American business enterprises last and this winter that carried this arresting statement. The advertisement said: "There are no simple solutions. There are only intelligent choices." The search for simple solutions to the current and prospective problems of higher education is doomed to failure. The search for intelligent choices is our only hope.

I congratulate as warmly as I know how the Higher Education Coordinating Board of Minnesota for launching this concerted, calculated effort to find intelligent choices for the future of higher education in this great state.

Higher Education and Planning: Agenda for the 1980s

I have a personal friend who was a long-time faculty member at Indiana University; he is now retired. The two of us were associated in a common cause in the Pentagon in World War II, *the* war for my generation of Americans. This friend and I have seen each other from time to time since then, and we often exchange ideas about the state of the universe and the state of universities. Not long ago, he sent me a copy of a paper he had written. He and I share a long-time admiration for Herman Wells, an admiration based upon our mutual Hoosier heritage, our personal experience and observation, and our profound respect.

In the course of this paper, my friend commented upon the Herman Wells method for making Indiana University the best university possible. He found the essence of the Herman Wells method to be a simple but effective procedure: to recruit the best available scholars and to give them the freedom and the resources to keep them productive. I find this description to be succinct and accurate. In all candor I must hasten to add that the procedure was neither new nor unique to Herman Wells. It was a procedure common to the intention and the aspiration of a good many university administrators in the 1940s and 1950s. Herman Wells was simply a more successful practitioner of this procedure than many others, and deserves rightful acclaim for his accomplishments.

I must make three observations about this method of achieving university distinction. First, the method inspired considerable imitation. Secondly, when coupled with enrollment expansion in the

1960s the method proved expensive to state governments. And thirdly, the method lost public understanding and appreciation in the 1970s. I could elaborate at some length upon these complications, but for the present, let us accept these observations as factually demonstrable and move on to the principal concerns I wish to address here.

As I look back upon my own nearly 30 years of experience with academic administration since 1949, I can see the many forces at work in American society which I but dimly perceived at the time of their major impact. The role of the Monday-morning quarterback is always relatively simple compared with the role of the planner and the manager the week before. We in higher education administration have made our fair share of mistakes or miscalculations in the years since 1945.

I shall refrain from comment about the State of Indiana in favor of some reminiscences drawn from my experience as a state university president and a state higher education chancellor in Ohio in the 1950s and 1960s. When I became a state university president in 1953, I became vaguely aware of certain factors influencing the course of events. We lived in the afterglow of spectacular achievement during World War II. We had been through the remarkable enrollment experience which we inelegantly labelled "the veterans bulge." We were fearful of enrollment decline and income loss after the disappearance of the veteran students. We did not yet foresee the coming tidal wave of students in the 1960s. We were surprised by the number of Korean veterans coming to our campuses and by the larger proportions of youth seeking the advantage of higher education. Then in 1957, the Russians launched their Sputnik and motivated us to explore space and expand research in order to maintain our defense superiority. And the remarkable achievements in medicine following shortly after World War II helped to bolster our academic reputations.

The times and the customs—a phrase I learned reading Cicero at Shortridge High School here in Indianapolis—dictated that the university ideal for all state universities should be the leading research university. What we accomplished in Ohio in the pursuit of that model was the inauguration of an era of state government planning for higher education. The tidal wave of students and the model of the ideal state university in combination led us to present ever larger

and larger financial demands to governors and legislators, and these demands in turn persuaded governors and legislators that some kind of state government planning in the field of higher education had become indispensable.

I want to emphasize that our state governments were reluctant planners for higher education. The planning thrust was not a power grab by expectant bureaucrats or a quest for plunder by eager politicians. The planning thrust was a cautious response to financial pressures. Two concerns were dominant in the establishment of state boards of higher education: (1) to place some limit upon the broadening ambition of all state universities to undertake extensive research programs, including award of the Ph.D. degree; and (2) to bring some order, if possible, out of the geographical proliferation of university campuses throughout a state. In addition, governors and legislators looked to a state board of higher education for advice and assistance in preparing state-wide budgets that were based upon some concept of rational need rather than upon the time-honored practice of pork-barrel politics.

For the most part, I believe, upon the basis of experience, that state government planning in higher education was at least partially successful in the 1960s. Three or four major accomplishments were realized. Geographical access to public higher education was enhanced, especially in large urban areas often neglected in the past. Every high school graduate with the interest and the necessary financial resources was provided the opportunity to enroll some place in higher education, if not at his or her first choice, at least some place. As charges to students were increased to meet ever advancing institutional costs, states began to offer student aid programs so that increased charges did not fall upon students from lower income families. And there was the development of at least one new area of instructional programming, the area of technical education.

I think the accomplishments of the 1960s in state government planning have been generally underestimated by many commentators. To be sure, most higher education faculty members were not happy about the state government incursion into higher education planning. Administrators and faculty members disliked having their own planning subjected to careful scrutiny, and they disliked the establishment of roadblocks in their drive for political influence. State

government planning has had a bad press on our higher education campuses.

And there were failures as well as successes in state planning. In our effort to bring public higher education to our cities we largely ignored the consequences thereby engendered for the private institutions of education that had discovered the American city long before public higher education did so. In our commitment to low tuition, we largely ignored the consequences thereby engendered for the private institutions who were having to increase charges to students in order to remain competitive in faculty salaries and other costs. In our student aid efforts we frequently overlooked the principle of choice along with the principle of access. And state planners were not suddenly freed from political pressures just because they now performed on a state-wide rather than an institution-wide stage. State planners in higher education were neither supermen nor miracle workers. I know whereof I speak!

Now, as I look to the 1980s I find the planning agenda for higher education more challenging than in any other decade of this century. We who have lived through troubled times—and my own lifetime now spans two-thirds of this century—think we have seen a good deal. I grew up in Indianapolis in the gilded 1920s. I lived the first five years of the great depression here in Indiana and the last five years in New York City. For nearly six years I was an academic participant in national defense. I returned to a great private university as a faculty member and then as an academic planner concerned about the loss of veterans enrollment, the future role of higher education in a post-war America, and the appropriate financing of our public and private institutions of higher education. As a state university president and as a state chancellor I witnessed steady growth and large expansion, triumph and tragedy, affluence and then the new depression. But nothing I have known will equal the complexities which lie ahead in the 1980s for American higher education.

Let me share with you my planning agenda for the 1980s. I have thought a great deal about the problems to be confronted and the responses that might be made by higher education in the next decade. These problems and their thoughtful attention are equally applicable to both public and private colleges and universities. The impact will be different in various locations, for various kinds of in-

stitutions, and among various kinds of financial circumstances. But no institution, no administrator or faculty member, no student or family, no state government can hope to escape the future.

I shall present my agenda in terms of problems to be confronted. I shall then indicate what I think some of the appropriate responses might be. I claim no special wisdom in finding useful or satisfactory solutions. In the words of the advertisement of one great American business corporation: "There are no simple solutions; there are only intelligent choices."

My planning agenda for the 1980s has ten principal items. These items are as follows:

1. Declining enrollments of the traditional college-age group 18 through 22 or 18 through 24 years.
2. A possible enrollment expansion for non-traditional students, students over 24 years of age.
3. The adjustment of enrollment in technical and professional programs to market demand for educated talent.
4. A possible shift in higher education objectives from an emphasis upon careers to an emphasis upon culture.
5. A reassessment of the research output of higher education, and of the institutional setting for this output.
6. A reappraisal of the public service output of higher education, and of the institutional setting for this output.
7. A redefinition of quality in program performance, and a new attention to the importance of qualitative standards.
8. A re-evaluation of the definition of educational justice for all individuals in terms of access, performance, and employment.
9. An insistence upon management structures and processes equally facilitative of institutional effectiveness and institutional efficiency.
10. A new look at costs and financing.

This agenda is formidable indeed. But I am firmly convinced that we in higher education must begin to prepare now to deal with these issues. Just as the tidal wave of students became the reality of the 1960s, the inundation of adjustment will be the reality of the 1980s.

The demographic facts of life are too well known to require elaboration. Just as we had ample warning in the 1950s that the

number of 18 to 21 year olds would increase sharply in the 1960s, so we have had ample warning in the 1970s that the number of youth in the traditional college age group will decline in the 1980s. This decline will undoubtedly affect various colleges and universities in different ways. I have yet to meet a college administrator or a faculty planning committee that is not convinced of its own future enrollment stability. Other colleges and universities will lose enrollment, they say; we are different and we will hold our own in the enrollment competition of tomorrow.

Some institutions, and some instructional programs, will hold their own. But all institutions cannot and will not have the same enrollments in the 1980s they have had in the 1970s. I think it is advisable for all institutions to prepare enrollment contingency plans. I think it is advisable for all institutions to examine their student market realistically, to review their instructional program objectives critically, and to analyze their performance standards carefully in relation to future instructional outputs.

Many institutions are looking expectantly to the enrollment of so-called non-traditional students. There are many academic planners today cautioning faculties and administrators about the dangers of over-expectation. I happen to be one of those persons who believes strongly that there is a substantial opportunity to enroll and to serve non-traditional students. But I am equally convinced that non-traditional students cannot be served with traditional curricula and traditional instructional methods. It will require non-traditional planning to entice non-traditional students to our campuses.

Most academic planners today appear to be reluctant to come to grips with the issue of labor market demand for educated talent. The traditional academic attitude, at least in the arts and sciences, has been that earning a living was not the end purpose of an undergraduate education. I might add that this traditional attitude was neither socially nor economically realistic, but then when did we expect faculty members in the arts and sciences to be socially and economically realistic!

I notice with interest that the Carnegie Council for Policy Studies in Higher Education recently declared its position that we should not educate any more doctors regardless of the supply of educated talent available for and seeking such instruction. This position reflects apparently a concern for economy as well as for manpower

planning. We may draw the lesson, I think, that the higher the cost of the instructional program per student, the greater will be the external demand for proper planning of student output in relation to labor market demand.

We in higher education have already experienced two considerable reductions in labor market demand for educated talent. There has been a decline in the demand for elementary and secondary school teachers, and although neither elementary nor secondary education can be regarded as having achieved satisfactory standards of performance in this country, I do not myself foresee that improvements will be sought through the employment of additional teachers. In addition, there has been a decline in the demand for scholar/researchers to staff our colleges and universities, primarily in the arts and sciences. There is still some demand for scholar/teachers, especially in our two-year institutions, but our most prestigious graduate schools are scarcely competent to provide this particular talent.

I can only warn here that we in higher education ignore manpower considerations at our peril. We shall compound the enrollment losses of the 1980s by our failures in adjustment to the changing career expectations and aspirations of students.

In this connection the fourth item of my planning agenda becomes especially relevant. I have suggested the desirability of shifting the orientation of much of our instruction from an economic preoccupation with careers to a cultural preoccupation with knowledge as a personal utility. I offer this advice primarily to my brethren in the arts and sciences. I know, as I have already alluded, that faculty members in the arts and sciences have never avowed an economic or career objective to their instructional endeavors, but in the years from 1945 to 1970 the reality was that economic and career opportunities underwrote our research efforts, our graduate instructional programs, and our output of scholar/researchers. Those economic and career opportunities will exist on a much more modest scale in the 1980s then they did in the 1960s.

I would like to see us who have been educated in the arts and sciences turn our immense talents more in the 1980s to general rather than to specialized education. We shall need a wholly new generation of citizens in our country in the 1980s: citizens mentally, emotionally, socially, and ethically prepared to cope with the

tremendous institutional adjustments required by a reduced scale of economic growth, by reduction in energy consumption, by conservation of our environment, by elimination of large-scale unemployment, and by more equitable distrubtion of incentives and rewards for economic output. The challenges of the 1980s will be social and institutional, not scientific, and I dread the fearful prospect that higher education will not respond to these new challenges half so effectively as we responded to the scientific and engineering challenges of the 1950s and 1960s.

My fifth agenda item is my concern for the future of research support in higher education. I would not want any observation of mine here to be interpreted as either criticism of research or a denigration of research. To the extent I would criticize our past performance in higher education, it would be criticism of our tendency to equate the best possible university with research output. We shall continue throughout this century and so far as one can see into the twenty-first century to need scientific research of high quality. We can hope to reduce the requirements of social change only insofar as our technology finds new ways to produce energy, to devise synthetic materials, to grow and process more food, to eliminate pollution of the environment, to expand employment opportunities.

This nation cannot afford to reduce its investment in research. But this nation cannot afford either to spread its research investment across the board to all general baccalaureate colleges and comprehensive universities. We shall have to concentrate our research investment in some 60 to 100 research universities. I suspect we would do better to make the number 60 rather than 100. Here is a nice planning problem!

In the same vein, I would argue that in the 1950s and 1960s we tended to over-rate the public service output of higher education: our contribution to continuing general education, to continuing technical and professional education, to cultural advancement, to recreation, to health service, to agricultural service, to advisory and consultative service. I do not underestimate the contributions actually made; but I do believe we assumed too readily that all faculty members and all institutions were equally involved in rendering such services. In the future higher education institutions will be able to offer only such public service as society is willing and able specifically to pay for in charges and special appropriations.

I know no greater challenge for higher education planning than our need to examine our standards of quality. I give considerable credence to the current work of educational psychologists who are urging us in the direction of self-paced learning and mastery learning. We are being told that we should define minimum acceptable standards of individual student performance in terms of cognitive comprehension and skill development, and that then we should vary the time expectations in which individuals can and do achieve mastery of these minimum standards.

But even if we adopt these environmental practices for the acquisition of learning and of technical or professional skills, I believe we shall not eliminate hereditary differences in our individual competencies. At a very early age in my own life I discovered that I would never be a musician or an athlete. Indeed, my musical education came to a resounding close the night the conductor of the Indianapolis Newsboys Band stopped a rehearsal, walked to my side, looked at my music, and remarked: "I was just curious whether or not you were playing the same piece of music as the rest of us." No amount of self-paced learning or of mastery learning would have converted me into a competent player of the bass clarinet.

I am sure we can improve our instructional procedures. I am equally certain that we shall continue to find some students who learn more rapidly than others, some who learn more competently than others, some who acquire skills of performance more effectively than others, some who process experience more usefully than others, some who evidence ethical behavior more generally than others. We cannot and should not, I believe, eliminate competition from learning, nor seek a meager equality of competence on the part of all students. As individuals we must remain equal in the eyes of the law and in the opportunities for achievement. As individuals we shall remain unequal in our accomplishments. If we try to eliminate or discourage the creative minority among us, we shall eliminate or discourage the very meaning of higher education in our society.

It is proper that American society in the past twenty-five years should have been particularly sensitive to the opportunities afforded to ethnic minorities, to the economically disadvantaged, to women, and to the handicapped. The concept of educational justice, I would assert, has been a part of American culture from the very beginning of our national history. That concept has received a new articulation

and a new practice in our time. But in our concern to reduce artificial or environmental barriers to higher education, we should not abolish the purpose of higher education: to provide the best available talent for the technical, professional, voluntary, and leadership roles in American society.

Under no circumstances should planners for the 1980s assume that equality of access to higher education has been achieved. But the goals of equality of access and of educational justice are not to be realized in higher education simply by maintaining our enrollments, or by increasing the proportion of youth entering higher education. Equality of access is a means to an end, not an end in itself. What counts is the use an individual makes of the opportunity for enrollment.

Finally, on this planning agenda, I shall join my ninth and tenth items: management effectiveness and efficiency and higher education costs and financing. I believe it is obvious today that some persons in our society question whether or not the costs of higher education are matched by a corresponding management effectiveness; that is, a corresponding socially useful output. If this attitude, or this questioning exists today, it will be even more prevalent in the 1980s. We should prepare to meet even greater doubts about our costs and about our management efficiency in the use of scarce economic resources. The day when we could ask and expect to receive is gone.

We finance higher education by governmental subsidy, by philanthropic generosity, and by charges to our student and other clientele. The most recently available data indicate that for all institutions of higher education, public and private combined, 48 percent of all income for current purposes came from governments, 45 percent from charges, and 7 percent from philanthropy. For public higher education, 63 percent of all income came from governments, 35 percent from charges, and 2 percent from philanthropy. For private higher education, 17 percent of all income came from governments, 68 percent from charges, and 15 percent from philanthropy. The proportions, of course, were different for research universities from those for other types of institutions. And the total institutional income of 36 billion dollars as reported in 1975 included income from auxiliary enterprises, from hospitals, and from independent operations.

It is obvious that public higher education is primarily dependent upon governmental subsidy (63 percent) and private higher education is primarily dependent upon charges (68 percent). I suspect that if public higher education in the 1980s is to enjoy greater affluence than currently, the income will have to be derived increasingly from charges and from philanthropy. I suspect that if private higher education is to enjoy greater affluence in the 1980s than currently, the income will have to be derived increasingly from governments.

In an address to a four-state workshop on the future of public higher education held in Dearborn, Michigan, in November, 1977, Governor Bowen of Indiana stressed the governmental interests in higher education. He identified those interests as effectiveness, efficiency, equity, and excellence. I see no reason of any kind to quarrel with Governor Bowen's definition of governmental interests. Indeed, I am sure he would go a step farther and assert that these interests are the public interests in higher education. I think these four concerns should be foremost in all higher education planning as it looks to the 1980s, and in the approaches we make for increased support to governments, to clients, and to philanthropic donors.

In a few remaining minutes let me stress my own concern about the process of planning, and about the planning decisions for the 1980s. I have on numerous occasions declared that the organizational units of higher education planning are our 3,000 campuses and our 51 state governments, including the District of Columbia. I do not regard the federal government as a major planning participant because its interest has been largely restricted to research and to student access. On both of these fronts the federal role is vital, indeed critical. The future of higher education research rests largely with the federal government, although both state governments and private philanthropy will have much to say about the particular institutions to participate in this federal government subsidy of research. The federal role is important also in financing access to higher education for youth from lower income families. Of federal government grants of some 4.1 billion dollars to institutions of higher education in 1975, I estimate that about 3 billion dollars went to research support, including institutional overhead and that about one billion dollars went for student financial assistance. Of course, the bulk of federal government support for student access

went directly to students and not through institutional treasuries, as with basic educational opportunity grants, veterans benefits, and social security benefits. These direct student assistance expenditures probably amounted to another 4 billion dollars.

The point is that the federal interest in higher education in our country is a limited interest, and so the federal government planning role is a limited one. The essential planning involving institutional roles and missions, the geographical location of institutions, instructional programs and objectives, enrollment size, and institutional organization and management are planning issues to be resolved by institutions and by state governments.

My basic planning concern is whether or not the organizational structure, the management processes, and yes the internal politics of our separate campuses will be adequate to the planning challenges of the 1980s. If our private colleges and universities cannot plan decisively for the 1980s, any approach they may make to state governments for financial assistance will be doomed to little if any response. If our public colleges and universities cannot plan decisively for the 1980s, any approach they may make to state governments for continuing financial sustenance will be viewed with little sympathy.

I remarked earlier that our state governments entered the field of higher education planning somewhat reluctantly, and did so only because of runaway appropriation demands upon governors and legislators. State government planning in higher education did meet some, perhaps most, of the obvious needs of the 1960s.

Our state government planning agencies are now in process of identifying and describing the planning needs of the 1980s. I doubt if there is a state board of higher education which has not developed a planning agenda for the 1980s very similar indeed to the planning agenda I have set forth here.

But state government planning agencies must depend first of all upon the planning initiatives and the planning decisions of individual campuses. State government planning agencies want and expect individual campuses to plan; they want and expect individual campuses to develop and propose plans of action. Moreover, these plans of action need to be realisitc. These plans of action need to be effective, efficient, equitable, and conducive to excellence.

If this kind of planning proves to be beyond the organizational,

management, and political competence of individual public campuses, then I have no doubt at all about what will happen. Increasingly, the consequence will be an even larger management role in higher education for state governments.

Let me be blunt. Institutional planning in the 1950s on the part of our public institutions was not effective, efficient, equitable, or committed to excellence. Rather, institutional planning reflected separate institutional aspirations; it did not reflect a state-wide interest. And so, state government planning in higher education was born.

If institutional behavior reflects the same kind of institutional self-interest in planning for the 1980s, the result will not be just state government planning but it will be state government management as well. The planning for the 1980s is essentially the management of change. Our campuses will either prove themselves competent to manage change or surrender their management autonomy.

The planning agenda for the 1980s is with us now. The plans for management change are still to be drawn up. But more than plans are now at stake. Institutional management is on the line. How will our campuses respond? I know how I hope this question will be answered. But hope is not enough. Institutional planning behavior will determine the future management and the future effectiveness of higher education in a coming decade of turbulence and change.